CLAIMS:

1. An X-ray CT apparatus, comprising:

a plurality of X-ray irradiation sources configured to rotate around an object and to irradiate X-rays to the object;

a plurality of X-ray detection units, each of which is positioned opposite each of the plurality of X-ray irradiation sources and configured to detect at least one X-ray penetrated through the object, thereby obtaining projection data and scatter correction data;

a control unit configured to divide a view cycle into a plurality of sub cycles, to allocate the plurality of sub cycles between obtaining the projection data and the scatter correction data, and to obtain view data by the view cycle based on the projection data and the scatter correction data; and

a reconstruction unit configured to reconstruct an image of the object based on the view data.

2. The X-ray CT apparatus according to claim 1, wherein a number of the plurality of sub cycles is equal to a number of the plurality of X-ray irradiation sources.

3. The X-ray CT apparatus according to claim 1, wherein a number of the plurality of sub cycles is more than a number of the plurality of X-ray irradiation sources.

4. The X-ray CT apparatus according to claim 1, wherein a number of the plurality of sub cycles for obtaining the projection data is equal to a number of the plurality of sub cycles for obtaining the scatter correction data.

5. The X-ray CT apparatus according to claim 1, wherein a number of the plurality of sub cycles for obtaining the projection data is more than a number of the plurality of sub cycles for obtaining the scatter correction data.

6. The X-ray CT apparatus according to claim 5, wherein:

the number of the sub cycles is equal to a positive integer m,

the projection data is obtained in (m-1) sub cycles, and

the scatter correction data is obtained in a remaining sub cycle.

7. The X-ray CT apparatus according to claim 1, wherein at least one of the X-ray detection units obtains the projection data when at least another of the X-ray detection units obtains the scatter correction data.

8. The X-ray CT apparatus according to claim 1, wherein the plurality of X-ray irradiation sources are positioned in a single circle.

9. The X-ray CT apparatus according to claim 1, wherein the plurality of X-ray irradiation sources move in a helical orbit around the object.

10. The X-ray CT apparatus according to claim 1, wherein the plurality of X-ray irradiation sources repeatedly move in a circular orbit about the object.

11. The X-ray CT apparatus according to claim 1, wherein an amount of X-ray used to obtain the projection data increases.

12. The X-ray CT apparatus according to claim 1, wherein the plurality of X-ray detection units are positioned to form a ring-shaped face.

13. The X-ray CT apparatus according to claim 1, wherein each of the X-ray detection units includes detection elements arranged 2-dimensionally in channel and slice directions.

14. The X-ray CT apparatus according to claim 1, wherein the reconstruction unit is configured to reconstruct the image of the object based on the view data of 180 degrees + fan angle degrees.

15. The X-ray CT apparatus according to claim 1, wherein the reconstruction unit is configured to reconstruct the image of the object based on the view data of 360 degrees.

16. The X-ray CT apparatus according to claim 1, wherein the plurality of X-ray irradiation sources include three X-ray tubes.

17. The X-ray CT apparatus according to claim 1, wherein the plurality X-ray irradiation sources include two X-ray tubes.

18. An X-ray CT apparatus, comprising:

a plurality of X-ray irradiation sources configured to rotate around an object and to irradiate X-rays to the object;

a plurality of X-ray detection units, each of which is positioned opposite each of the plurality of X-ray irradiation sources and configured to detect at least one X-ray penetrated through the object; and

a control unit configured to control the plurality of X-ray irradiation sources and the plurality of X-ray detection units such that at least one of the plurality of X-ray detection units obtains projection data when at least another of the plurality of X-ray detection units obtains scatter correction data.

19. An X-ray CT apparatus, comprising:

a plurality of X-ray tubes configured to rotate around an object and to irradiate X-rays to the object;

a plurality of X-ray detection units, each of which is positioned opposite to each of the plurality of X-ray tubes and is configured to detect at least one X-ray penetrated through the object; and

a control unit configured to control the plurality of X-ray tubes and the plurality of X-ray detection units such that at least one of the plurality of X-ray detection units obtains projection data when at least another of the plurality of X-ray detection units obtains scatter correction data.

20. An X-ray CT apparatus, comprising:

a plurality of X-ray irradiation sources configured to rotate around an object and to irradiate X-rays to the object;

a plurality of X-ray detection units, each of which is positioned opposite to each of the plurality of X-ray irradiation sources and is configured to detect at least one X-ray penetrated through the object to obtain projection data and scatter correction data;

a control unit configured to obtain view data by a view cycle, based on the projection data and the scatter correction data; and

a reconstruction unit configured to reconstruct an image of the object based on the view data.

21. An X-ray CT apparatus, comprising:

a plurality of irradiating means, rotating around an object, for irradiating X-rays to the object;

a plurality of detecting means, each of which is positioned opposite to the plurality of irradiating means, for detecting at least one X-ray penetrated through the object to obtain projection data and scatter correction data;

means for dividing a view cycle into a plurality of sub cycles, for allocating the sub cycle between obtaining the projection data and the scatter correction data, and for obtaining view data by the view cycle, based on the projection data and the scatter correction data; and

means for reconstructing an image of the object based on the view data.

22. A method for correcting scattered X-ray, comprising;

stopping an X-ray from a first X-ray irradiation source to an object;

irradiating an X-ray from a second X-ray irradiation source to the object;

collecting scatter correction data of the object by a first X-ray detection unit positioned opposite to the first irradiation source when the X-ray from the first X-ray irradiation source stops and the X-ray from the second irradiation source is irradiated;

irradiating the X-ray from the first X-ray irradiation source to the object;

collecting projection data of the object when the X-ray from the first X-ray irradiation source is irradiated; and

correcting the projection data based on the scatter correction data.